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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,143	09/19/2001	Kentaro Yokoi	P 283647 T4HT-01S05691	8362
909	7590	10/25/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			UPRETI, ASHUTOSH	
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2623

DATE MAILED: 10/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,143

Applicant(s)

YOKOI, KENTARO

Examiner

Ashutosh Upreti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11-15, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 8, 10, 16 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/19/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6, 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are written in an extremely confusing manner. For example, see the portion of claim 1 describing a stamp detecting section.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7, 11, 12, 15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Uno (U.S Patent 5,535,127).

As to claim 7, Uno discloses a letter processing apparatus comprising:

an image input section (Figure 1, 103) which inputs an image of a letter (Figure 1, 101) having at least one stamp (Figure 1, 102) affixed thereto;

a stamp detecting section (Figure 27) which detects a stamp affixed to the letter based on a luminance projection value derived according to the image input by said image input section. The "luminance projection value" is disclosed in Uno as reflected

light sensed by an optical sensor (column 4 lines 24-26 and Figure 1, 103), which creates an image based on said light (Figure 1, Image Data Forming Section), from which projection values of the image are determined (Figure 16).

a stamp identifying section (Figures 119-120) which identifies the type of stamp (column 12 lines 56-58) detected by said stamp detecting section;

a stamp face value determining section which derives a total face value of the stamps affixed to the letter based on the type of the stamp identified by said stamp identifying section (column 18 lines 2-3). It is clear that to be able to determine if the "charge on the postal indicia is valid", Uno must be reading the face value of the stamp;

and a sorting section (Figure 1, 128 a-d and 129 a-e) which sorts the letter based on the total face value of the stamps derived (column 5 line 56 to 59) by said stamp face value determining section.

As to claim 11, Uno discloses a memory section that compares stamp face values with stored information. This is shown by the existence of a postal indicia image memory (Figure 1, 119), postal indicia dictionary memory (Figure 1, 120) and postage look up table (Figure 1, 121). The other limitations of the claim are rejected as the same reasons (regarding face value and sorting) as set forth in claim 7.

As to claim 12, Uno further discloses a postmark stamper (Figure 1, 126) section which postmarks the letter when the stamp face value is adequate and based on image information of the stamp (column 4 lines 40-44). A postage-due mark stamping machine (Figure 1, 127) stamps the mail when postage is inadequate.

The other limitations of claim 12 are rejected as the same reasons set forth in claim 7.

As to claim 15, Uno discloses a letter processing method comprising:
deriving a density projection value (Figure 16) based on the input image;
detecting a stamp affixed to the letter based on the thus derived projection value
(Figure 27);

The other limitations of claim 15 are rejected as the same reasons set forth in claim 7.

Regarding claim 19, the limitations of the claim are rejected as the same reasons set forth in claims 7 and 11.

Regarding claim 20, the limitations of the claim are rejected as the same reasons set forth in claims 7 and 12.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uno in view of Wenzel (U.S Patent 6,222,940 B1).

Uno discloses a stamp identifying section (Figures 119-120) which identifies the type of stamp (column 12 lines 56-58) detected by a stamp detecting section.

Uno does not expressly disclose the use of matching stored partial areas of an image to a portion of a target image.

Wenzel discloses a computer, which previously stores noticed area specifying information (read as templates) (column 5 line 47), which is then compared with a portion of the target image (column 12 lines 31-35). The software is essentially pattern matching (column 5 line 49) between the template and target image.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to apply the template image storing and matching of Wenzel to Uno for the identification of stamps as the stamps, once scanned in, are simply images which can be distinguished based on matching a template with a portion of the stamp. One of ordinary skill in the art would have been motivated to do this as using pattern matching of stored template images with a portion of the target image improves the ability to identify particular types of stamps quickly.

Allowable Subject Matter

7. Claims 1-6, 13 and 14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 8, 10, 16 and 18 are objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

As to claim 1, the prior art disclosed a stamp detecting device comprising:

An image input section (Uno, Figure 1, 103), which inputs an image of a letter (Uno, Figure 1, 101) having at least one stamp (Uno, Figure 1, 102) affixed thereto. The prior art also discloses a character recognition section (Kimura (U.S. Patent

5,926,564) Figure 1), which detects characters on a document. The concept of internal gap areas (those gaps within an image) is used when detecting characters (Kimura, Figure 6G in the horizontal direction). Furthermore, Kimura teaches that the character detecting technique can be used to detect both individual characters and a line of characters (column 5 lines 57-58). In order to detect individual characters out of a line of characters Kimura must be utilizing the concept of external gap areas (the areas between objects in an image) though it is not explicitly stated. In Kimura, the characters being extracted (Kimura, Figure 1, 4) are simply objects in an input image (Kimura, Figure 1, 2) of the document. The situation is seen as similar to using gap areas for detecting a stamp, which is essentially an object in an image of a letter. In addition, Mahoney (U.S. Patent 5,537,491) explicitly discloses the concept of external gap areas by describing the use of gap areas between items in an image array (Mahoney, column 11 lines 62-64). The claim was considered allowable as both the internal and external gap area concept was not found in relation to the detection of stamps.

As to claim 2, the prior art discloses stamp detection based on a derived luminance projection value (see rejection of claim 7). In addition, the instant application discloses related information as admitted prior art. It discloses the use of various threshold values to distinguish between types of areas (page 1 lines 22-24). The claim was considered allowable, as there was no prior art that disclosed thresholds relating to internal gap areas when detecting stamps.

As to claim 3, the prior art relating to claim 2 is applicable. In addition, the instant application disclosed obtaining threshold "values derived by a statistical calculation

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based on an image of the letter" when a "stamp is detected" (page 1 lines 25-27). This was considered to be the same as changing conditions of threshold values based on the detected image. The claim was considered allowable, as there was no prior art that disclosed thresholds relating to internal and external gap areas when detecting stamps.

As to claim 4, the prior art disclosed most of the limitations in this claim (see reasons for rejection of claim 7). In addition, aspects of internal and external gap areas were disclosed but not in relation to stamp detection (see reasons for allowance of claim 1). The claim was therefore considered allowable.

As to claim 5, the reasons for allowance are the same as those set forth for claim 2.

As to claim 6, the reasons for allowance are the same as those set forth for claim 3.

As to claim 13, the reasons for allowance are the same as those set forth for claim 1.

As to claim 14, the reasons for allowance are the same as those set forth for claim 4.

As to claim 8, the prior art disclosed identifying the type and orientation of a character on a page by comparing the pattern of the detected character with a plurality of standard patterns previously prepared for other rotational positions of the character (Melen (U.S. Patent 6,151,423) column 4 lines 29-31). This was considered to be somewhat analogous to stamp detection given that both situations involve pattern matching of images. The claim was considered allowable as the prior art failed to

expressly disclose the application of identifying and then detecting the orientation of images through pattern matching, to postal stamp detection.

As to claim 10, the prior art disclosed comparing partial areas of a character to previously stored partial areas (Melen column 1 lines 51-53). This information is used to determine the orientation of the character, which is then used to determine the orientation of the page (Melen column 2 lines 27-30). The claim was considered allowable as the prior art fails to disclose an apparatus that, after identifying the orientation of the stamp, accordingly changes the orientation of a partial area and then uses that information to identify the type of stamp.

As to claim 16, the reasons for allowance are the same as those for claim 8.

As to claim 18, the reasons for allowance are the same as those for claim 10.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,047,085 to Sato et al. is cited for disclosing the use of pattern matching in the detection of postal stamps.

U.S. Patents 4,998,626 to Ota and 5,025,475 to Okabe are cited for disclosing a stamp detector in mail processing apparatus.

U.S. Patent 5,926,564 to Kimura is cited for disclosing the concept of internal gap areas, though it is applied to character recognition.

U.S. Patent 5,537,491 to Mahoney et al. is cited for disclosing the concept of external gap areas.


U.S. Patent 6,151,423 to Melen is cited for disclosing image identification through pattern matching, though it is applied to character recognition.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashutosh Upreti whose telephone number is (703) 306 4087. The examiner can normally be reached on Monday-Friday from 830am – 5.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU
October 20, 2004


Jon Chang
Primary Examiner